

THE MEDICAL EXAMINER,

And Retrospect of the Medical Sciences.

Vol. VI.]

PHILADELPHIA, SATURDAY, APRIL 29, 1843.

[No. 8.]

A COURSE OF CLINICAL LECTURES,

*Delivered at the Hôtel Dieu, Paris, for the Session
1842-'43.*

BY A. F. CHOMEL, M. D.

LECTURE VI.

SCIRRHOUS DEGENERATION OF THE LIVER.

At No. 9 of the Salle Saint-Agnes, commenced Dr. CHOMEL, is a patient who entered the hospital with considerable effusion into the abdomen, and with a tumor in the hepatic region, of such volume as to occupy also the two hypochondriac regions. This tumor extends beyond the false ribs of the right side by four fingers breadth, and is then directed obliquely from left to right in the direction of the anterior or sharp edge of the liver; it is evidently formed by the liver itself, which appears to be profoundly altered. It might be thought that the tumor is formed by the epiploon; but a tumor thus formed would occupy chiefly the middle of the abdomen, whereas this tumor is much more developed on the right side than on the left. We have, then, in this case, a considerable ascitic effusion, with an abdominal tumor, recognizable by palpation, exercised with the precautions necessary when a liquid is interposed between the viscera and the abdominal parietes;* and this tumor is manifestly formed by the liver. The patient, however, does not present any symptom of icterus; the skin is pale, and somewhat florid, without any appearance of that yellow tint which is one of the characters of organic affections of the abdomen. This is a fact which contrasts remarkably with the presumed nature of the disease.

On his entrance, three days since, this patient had still some appetite; the tongue was white; there was no thirst; if he eat a little, he immediately experienced inconvenience, and then pains in the stomach, which obliged him to observe a severe abstinence. His stools were liquid and yellow; he had no fever.

To-day the same state continues; it would seem as if the liver were a little less voluminous than it was on the day the patient entered the hospital; this is probably due to that organ having somewhat changed its place, and thus presenting a smaller surface to the touch. As to the general condition, it would seem, on the contrary, to be aggravated; the anæmia increases daily, and the difficulty of respiration has augmented in proportion.

Before discussing the nature of the disease in question, it will not be useless, in this place, to recall the antecedent history of the patient, such as we have collected it from himself. He has assured us that his health was habitually good; and that with the exception of slight colds, of which he cured himself

very speedily, he never had suffered from any disease before the present attack. He was taken sick towards the latter part of December; at this period he perceived that his abdomen was somewhat enlarged, and a little white; afterwards his legs began to swell. Thus, from the declaration of the patient, we find that the disease is recent, and that its progress has been remarkably rapid. He told us, moreover, that he never had received a blow, or had a fall upon the region of the liver; he never has had any trouble, or experienced any reverses. Hence we can find neither a physical nor a moral cause for the development of the disease.

There remains another question to be proposed, after that of etiology, which is, as you see, involved in some obscurity; it is to know what is the exact lesion of the liver which gives rise to the morbid phenomena we observe; as to the seat of the disease there is no doubt, for the ascites is evidently only a consecutive state, or symptom of the affection of the liver.

What is, then, the nature of the hepatic lesion? What is it which produces the anormal development which this organ presents? This augmentation of volume may depend on several conditions, whose characters we should investigate here. It can be produced by an inflammation of the liver, by a cyst, by an abscess, a scirrhus degeneration, or by a simple hypertrophy consecutive to a cirrhosis, which latter is, however, very rare. The rapidity in the march of the affection would lead us to believe in the existence of a phlegmasia of the hepatic tissue; but an acute inflammation of the liver would give rise to a febrile movement of more or less intensity. Now, in our patient the pulse has not been affected; hepatitis, too, is ordinarily accompanied with an alteration of the biliary secretion with icterus; here we see this symptom, too, is wanting. Finally, it is very rare, in the climate of Paris, to see cases of spontaneous hepatitis; these are almost always traumatic. We have seen that this patient has had neither a blow nor a fall upon the side; so that the absence of the characteristic symptoms on one side, and also of the causes by whose influence it is ordinarily developed on the other, lead us at once to dismiss the idea of this affection, whilst there is nothing, on the other hand, which authorises our admitting it. The same motives lead us to reject also the idea of an abscess; for although, strictly speaking, a purulent collection may occur in the liver, without its being preceded by any well-marked inflammation, yet, as a general rule, the formation of an abscess is the last stage of inflammation of the liver. Besides, whatever, may be the origin of the suppuration, it is always accompanied by fever; and here it is entirely absent. Is it cirrhosis? This is not an impossible supposition; for although, in general, hypertrophy is not connected with this alteration of the liver, yet we sometimes find hypertrophy and cirrhosis united in the same subject. I have had occasion to observe two cases of this kind in my service; and as the coincidence is very rare, I deposited the pieces in the Dupuytren Museum. The existence, then, of hypertrophy does

* See Medical Examiner, p. 62.

not positively exclude the possibility of cirrhosis; but cirrhosis is ordinarily accompanied, if not with decided jaundice, with a dusky yellow tint of the skin, sufficiently characteristic, which in our patient is altogether wanting.

Is it, then, a multilocular scirrhus tumor? This last supposition seems to me more probable than the others. Certainly it is not common to see scirrhus degenerations of the liver develop themselves in so rapid a manner; their march is generally more slow; but, nevertheless, we sometimes see them developed with very great rapidity, and arrive at their last period without any appreciable antecedent stage; and this, too, in persons who offer all the appearance of fine health. That which induces me, above all, to incline towards this opinion in the present case is, that it is very common in such cases to encounter neither icterus nor sensible alteration in the urine, or in the alvine evacuations, nor to find any marked disturbance in the digestive functions, except in the very last stage. These circumstances arise from the fact, that in the interspaces of the enucleated tumors of the liver, the hepatic tissue remains sound, and the biliary secretion is consequently performed as well, or nearly so, as in the normal state. When we examine with care the relations of these tumors with the hepatic ducts, we find that they are compressed by the tumors in a manner altogether mechanical; and if the biliary secretion does become deranged, and consecutively the digestive functions, it must be attributed alone to the mechanical pressure exercised on the excretory ducts of the liver, and not to any real alteration in the secretion itself; a fact which is fully demonstrated in all our autopsies in a most evident manner. It is thus that we explain the appearance of icterus in the course of a scirrhus affection of the liver.

Thus, the absence of icterus, which, with regard to the other alteration of the liver, is a mere negative sign, becomes nearly a positive sign in connection with the organic alteration we suppose to exist in the present case; icterus here being an exception, and in a measure entirely accidental. Finally, on exploring with care the most superficial portion of the liver at the epigastric region, I discovered inequalities on the surface; salient, prominent points, with depressions; this is nearly a certain diagnostic sign of the existence of scirrhus, whenever this character is fully revealed, which, however, it is not in the present case, owing to the intra-peritoneal liquid. Another circumstance which prevents our recognizing this character distinctly, is the excessive sensibility of the liver, and the difficulty of continuing exploration for any length of time, without occasioning great pain to the patient. This excessive sensibility would seem to be due to the special alteration, of which the liver is the seat; and it may also be due to a certain amount of peritonitis.

In addition to the symptoms already enumerated, you may remark a dilatation of the superficial veins of the abdomen; they are slightly varicose; now this happens whenever the abdomen is anormally distended. The liver is also pushed up into the cavity of the chest, which explains the diminution in the respiratory murmur on the right side, whilst on the left side it is perfectly natural. This circumstance, joined to the dulness of the whole inferior half of the right side of the thorax, is a new sign indicative of the volume of the liver.

It is hardly necessary to tell you that the prognosis of this affection is exceedingly grave. The oppression goes on increasing, and tends to aggravate more and more the position of the patient. What is to be

done under these circumstances? What is the treatment to be employed? Whatever we do, it is more than doubtful that we do not obtain any satisfactory result. Under this conviction our means are limited to the administration of opiates, with the faint hope of bringing some relief to the patient; for even the palliative means will probably be without effect.

[On the seventh day after the entrance of the patient into the hospital he died, the oppression going on increasing till death.

The autopsy showed a condition of the liver constituting a very remarkable pathological specimen. This organ had acquired twice its natural volume; its tissue was hard, and the surface was covered with small enucleated tumors, about the size of hazel nuts; in some portions they were in clusters so as to occupy the whole substance of the liver. In discreet intervals, the hepatic tissue remained sound in their intervals, of a brownish red color. In incising the organ in its entire width, the substance presented the appearance of a layer of a greenish yellow colour, marbled, in which the natural substance of the liver could not be distinguished. Thus nearly the whole substance of the liver was invaded and replaced by these masses of degenerated tissue.

It is very remarkable, and very difficult to explain why there were no symptoms of jaundice with such profound alterations; and how the biliary secretion went on till the last in nearly a regular manner.

The abdominal cavity contained only a small quantity of serum. The other viscera were healthy.]

Paris, January, 1843.

CLINICAL LECTURES AND REPORTS

PHILADELPHIA HOSPITAL.

CASE OF PHTHISIS PULMONALIS,

In which the humming sound was very distinct in the jugular veins—Necropsy—Numerous lesions—Extra-uterine foetation, &c.

BY M. W. WILSON, M. D.

Late Resident Physician of the Philadelphia Hospital, Schenectady, New York.

[Communicated by Professor DUNGLISON.]

H. P.—, a coloured woman, of middle age, entered the hospital in March, 1842, labouring with phthisis pulmonalis. No anterior history of any interest was obtained from her. She had had a troublesome cough and difficulty of breathing for several years, which had of late become more severe. Treatment was directed, except a simple peppermint drink; and the strength was supported by good and nourishing diet.

She remained in very much the state in which she entered until May 31st, when she was examined by Dr. Pennock, and the following note was taken:

Decubitus half recumbent; extreme emaciation; pulse small, regular, and slightly corded, 114 in minute. Percussion obscurely resonant on the right side anteriorly, except just beneath the clavicle, where it is resonant. It is also obscure in the middle of the left side, and resonant elsewhere, especially in the præcordial space. Posteriorly, the left side more developed than the right. Percussion flat on the upper two-thirds of the left. Flat also at

summit of the right, and obscure elsewhere. Respiration bronchial in the lower part of the right lung, both anteriorly and posteriorly, and rudely vesicular at the summit. In the left lung, very strong cavernous respiration is heard from the clavicle to the third rib anteriorly, and at the summit posteriorly; bronchial respiration with crepitant rhonchus in the middle two-thirds.

The size of the heart cannot well be pointed out by percussion, owing to the solidification of the left lung.

Sounds of the heart.—Between the fifth and sixth ribs, one inch to the left of the left nipple, both sounds are heard, the first blowing. When excited, this blowing is converted into a rasp, and the second sound is lost.

Over the aortic valves both sounds are heard—the first blowing, and the second clear and ringing. The sounds become more rough as we ascend the aorta, until a complete saw sound is heard. The rasping sound is much louder immediately above the sternum in the neck, than it is over the aortic valves. On the right side the sounds are natural.

A strong impulsatory movement is observed immediately to the right of the clavicular portion of the sterno-cleido-mastoid muscle, at which spot a continued humming sound is ordinarily heard, varying in intensity from a drone to a rasp, and which—when raised to this pitch—is divisible into two sounds. This sound is not heard over the subclavian artery, between the scaleni muscles, over the carotid, or over the arch of the aorta. The same sound is heard (drone or hum) under precisely the same circumstances, and in the same position, over the left side.

The patient became more and more emaciated until her death, which occurred in June last. The humming sound, as well as the other facts noted above, continued to be observed.

Necropsy about eighteen hours after death.

A careful dissection of the neck was made with the purpose of ascertaining the relative size and situation of the bloodvessels, in regard to the surrounding parts. The only thing differing from the natural state that was detected, was an enlargement of two of the bronchial glands on the left side. The larger measured eight lines in length, six in breadth, and four in thickness. The other was about one-third of this size. These glands pressed on the internal jugular vein at its junction with the lingual vein. The vein itself was almost entirely devoid of blood. On the right side an enlarged lymphatic gland was found pressing on the transverse vein, at its junction with the vena cava descendens. This gland was about three times the usual size.

The pericardium contained about the ordinary amount of serum, of a deep red colour. It was adherent to the pleura to such an extent, that great difficulty was found in separating them.

The heart measured in circumference, at its base, eight and a half inches, and in length five inches. It was very flabby, and softened. The aortic valves were slightly thickened with intra-membranous depositions; but they were quite flexible. The mitral valve was nearly natural. The right ventricle contained about an ounce and a half of fluid blood, some of which was partly coagulated, and all very tenacious. In the left ventricle there was a small, very firm coagulum.

The pleura costalis and pleura pulmonalis were adherent throughout, on both sides of the chest.

The left lung was almost entirely destroyed. A

cavity occupied the upper part; and in the remainder the pulmonary structure was converted into tubercular degeneration, interspersed with small cavities. The summit of the right lung crepitated, under pressure, very feebly. The lower part was almost entirely destroyed by tubercular degeneration.

The liver was of dark colour, and soft; about the normal size, and cirrhotic. The stomach was healthy.

The tubercular portion of the kidneys was of a dark red colour. The cortical of a dusky yellow, with granular degeneration.

When the abdomen was cut into, a large tumour presented itself, occupying the whole of the lower portion. It was spherical, and measured about eight inches in its transverse diameter: in its diameter parallel with the body six inches, and it was four inches deep.

On examination, it was found to occupy the place of the left ovary. The fimbriated extremity of the right fallopian tube was attached to the right side of the tumor. The uterus, of the natural size and appearance, lay immediately below and behind it. The right ovary was slightly enlarged, and of a very dark colour.

On cutting into the tumour it was found to contain a cheese-like substance, with small masses of hair, quite compact, mixed through it. The amount of this matter was neither weighed nor measured; but it was supposed to be about three pints. The walls of the tumor were firm and resisting, and presented, on their internal surface, the appearance of the bones of a fœtus. One of the scapulæ and the parietal bones were, indeed, quite distinct. The mass was preserved in salt water for further inspection.

BIBLIOGRAPHICAL NOTICES.

The Elements of Materia Medica and Therapeutics.

By JONATHAN PEREIRA, M. D., F. R. S. and L. S., &c. &c. With Numerous Illustrations. From the Second London Edition, Enlarged and Improved. With Notes and Additions. By JOSEPH CARSON, M. D., &c. In Two Volumes. 8vo. pp. 714-852. Philadelphia: Lea & Blanchard.

The work of Dr. PEREIRA has been for several years familiar to the student of Materia Medica in this country. Its present republication throws it open to the profession generally. It is, beyond all doubt, the most complete work of the kind in our language. The amount of learning and research exhibited is almost incredible, and, along with these, there is much sound personal knowledge, with professional tact and good judgment. The work is at once copious and concise; there is nothing in connection with the subject which, on reference to its pages, we cannot find, and yet all this is done in a compact, happy manner. "Replete with erudition, and at the same time most satisfactory with respect to references, it is admirably suited to the wants of the advanced student and practitioner; whilst from the distinctness of the facts, their methodical arrangement, and the clear philosophical explanations connected with them, it meets the wants of the student who is in search of the first lessons in the science. It may, therefore, with equal benefit, be employed as a work of reference, or as an elementary

text book, in which two-fold character it occupies an unusual position."—(*American Editor's Preface.*)

To adapt it to our meridian, the nomenclature of the last edition of the United States Pharmacopœia has been introduced. This has been done by "inserting the name of each article adopted by that standard, in connexion with the authorities uniformly cited by the author, or by expressing a correspondence of name with one or more of them by the symbols (U. S.) in union with similar symbols, used by him to indicate the authority." Where the formulæ of our national standard are new, or differ from those in the text, they have been presented in detail. Histories of our more important indigenous medicines have been introduced. The manner in which the American editor has discharged his delicate and onerous duties is highly creditable to him, and show how amply qualified he was, in all respects, for the task. He has shown at once knowledge and judgment.

A Tabular Historical View of the History and Literature of the Materia Medica precedes Part First, which embraces General Therapeutics, a complete and excellent treatise in itself. Part Second treats of Special Pharmacology. The articles are arranged in Natural Historical Order. Under the Inorganized Kingdom the Non-metallic and Metallic Substances are treated. The Organized Kingdom is divided into two sub-kingdoms—the Vegetable and Animal.

The work is illustrated with two hundred and seventy-nine wood cuts.

Transactions of the Medical Society of the State of New York. Vol. V. Part III. 1843. Albany, 1843. 8vo.

The present part of the fifth volume of the Transactions contains the Annual Address, by Dr. TAYLOR, the President of the Society; Homœopathy Illustrated, by Dr. T. W. BLATCHFORD; and Insanity, its causes, pathology and treatment, by Dr. C. B. COVENTRY, of Geneva College. The subject which Dr. TAYLOR has chosen is that of typhoid fever; it is treated as a sensible practical man would treat it, avoiding all the intricacies of the subject. At this moment, when quackery is in such general repute, the address of Dr. BLATCHFORD is opportune. To contend successfully against popular delusions the profession should understand, or endeavour to understand them perfectly—for sometimes they are, we confess, above all comprehension. Dr. B. has sketched the principal doctrines of homœopathy fairly and successfully, and exposed ably its fallacies. We would recommend the perusal of Dr. Blatchford's address to the profession generally. The subject of Dr. COVENTRY's contribution has of late received so much attention from us, that we cannot do more at present than say it is a creditable performance.

The appendix to this brochure contains the Report of the Committee on Medical Societies, &c., of the New York House of Assembly in 1842, on the application of the Thomsonians to admit them to a legal equality with other physicians in that State. The report is adverse to granting the petition, inasmuch as the applicants do not comply with the provisions of the statute regulating medical instruction. In the Senate the same committee reported unanimously against "levelling all distinctions between learned and unlearned physicians," and as a

substitute to the bill under consideration, proposed one in which the qualifications for a license were raised as follows:

§ 1. No person shall be admitted to an examination as a physician or surgeon, unless he shall have studied seven years in the office of a practising physician or surgeon, deducting therefrom the time he shall have pursued classical studies and attended medical lectures, not exceeding in all four years.

§ 2. No person shall receive the degree of doctor of medicine until he shall have been for three years a licensed physician; or until he shall have been licensed as a physician and surgeon, and subsequently thereto shall have spent six months as a pupil in some of the public hospitals of this State.

Unfortunately, however, on February 11th, 1843, the Select Committee of the Assembly reported a bill repealing the laws restricting the practice, accompanied with a report of the most absurd and radical character.

Operations for Fissure of the Soft and Hard Palate (Palatoplastie.) By J. MASON WARREN, M. D. Boston, 1843. 8vo. pp. 11.

The present publication is designed to show the successful application of a modification of Professor ROCHER's operation for fissure of the palate. Dr. WARREN thus describes the operation he has adopted:

"The patient is placed on a low seat, in a strong light, his head firmly supported on the breast of an assistant, who raises or depresses it as circumstances may require. He is directed to keep the jaws widely separated, to retain any blood which may collect as long as possible, so as not to embarrass the operator and restrain all efforts at coughing. To do this will require constant warnings and encouragement on the part of the surgeon, as there is a natural tendency to close the mouth as soon as any pain is felt, or there arises any collection of blood or mucus in the fauces which interferes with respiration. The use of a speculum, as directed by some operators, is altogether inadmissible; it not only obscures the light, but also prevents the proper manœuvres of the instrument. The mucous membrane of the hard palate is now to be carefully separated from the bones with a long double-edged bistoury, curved on its flat side, and rather peeled than dissected off, from the difficulty of making any sawing motion with the knife in this confined situation, the obstacles always being greater in proportion to the obliquity of the palatine vault. As the dissection approaches to the connection of the soft parts with the edges of the ossa palati, when the muscles are attached and the union most intimate, great care must be taken or the mucous membrane will be perforated, and from these causes I have found this part of the operation to be the most embarrassing. As soon as this dissection is terminated, it will generally be found that by seizing the soft palate with a forceps it can be easily brought to a median line. If the fissure is wide, and this cannot be effected, I have found the following course to be invariably followed by success. The soft parts being forcibly stretched, a pair of long, powerful French scissors, curved on the flat side, are carried behind the anterior pillars of the palate; its attachments to the tonsil and to the posterior pillar are now to be carefully cut away, on which the anterior soft parts will at once be found to expand, and an ample flap be provided for all desirable purposes.

The edges of the palate may now be made into

raw surface by seizing them on either side with a hooked forceps and removing a slip with the scissors or a sharp-pointed bistoury. Our next object is to insert the ligatures, and for this purpose an immense armory of instruments have been invented. After the trial of nearly all of them I have found the most simple to be the most effectual. A small curved needle being armed with a strong silk thread, confined in a forceps with a movable slide, is introduced to the upper edge of the fissure, the needle being carried from before backwards on the left side, and from behind forwards on the right, or vice versa. In this manner, three or four more ligatures may be successively introduced. The patient is now requested to clear his throat of mucus and blood, the ligatures are wiped dry and waxed, and tied with deliberation, beginning at the upper, and proceeding gradually downwards, waiting a little between each ligature, in order to allow the throat to accommodate itself to this sudden and almost insupportable tension of the soft parts. No forceps are required for holding the first knot while the second is tied; the object is better effected by using the surgeon's knot; that is, by making two turns of the thread instead of one, and by enjoining perfect quiet on the patient for the moment, until the second knot is tied. It has been advised by some surgeons to wait a certain length of time, after the cutting part of the operation, before inserting the ligatures, five or six hours for instance, to allow all bleeding from the wound to cease. This appears to me a useless prolonging of the patient's suffering, and entirely unnecessary. I have never seen, in a single instance, either in the operations of surgeons abroad or in my own experience, any hemorrhage that a little iced water, or the pressure for a short period with the finger, would not easily arrest. The after treatment will not here require any notice, as it has been sufficiently noted in the previous detail of the cases.

In all the operations of this kind which I have lately had occasion to perform, the ligatures have been removed at the end of forty-eight hours, or at the farthest three days, and to this circumstance may be partly attributed the successful termination. If the threads be allowed to remain until the 4th, 5th, or 6th day, as recommended and practised by Roux, the apertures left by them will be of such magnitude as almost to approach each other, and to weaken the parts so as to cause a separation on any untoward motion of the patient."

M. Roux has lately published a résumé of his cases. Where there is simple fissure of the palate, two out of three cases succeed. Where there is complication with fissure of the hard palate, only one out of three is successful. In these cases he still cuts away the soft palate transversely from the palatine bones, and stretches the flaps across the chasm, thus leaving an operation in the bones to be artificially cured. Dr. WARREN has obtained by his method the extraordinary success of 13 out of 14. In the unsuccessful case there was so great deficiency of the soft parts that Dr. W. stated to the patient the possibility of a failure.

The twenty-sixth "Annual Report on the state of the Asylum for the Relief of Persons deprived of their Reason," located at Frankford, Pennsylvania, is before us. It shows the Institution to be in a prosperous condition, and the plan of treatment pursued to be similar to the one now universally adopted.

FOREIGN CORRESPONDENCE.

Diminished number of Medical Students in Paris—Dr. Quadri, the Neapolitan Surgeon—Singular case of the influence of the imagination on the fœtus—Dr. Leroy d'Etiolles—Electro puncture—Professor Velpeau—Dr. Briquet and Large Doses of Quinine—Dr. Louis—The appointment of Dr. Baudens to Val-de-Grace—The discussion on Tenotomy—The vacant seat at the Institute—Dr. Andral—M. Dumas—Dr. Orfila and the Case of Poisoning by Prussic Acid—M. Renault—Climate and health of the Metropolis during the Winter.

PARIS, February 21, 1843.

To the Editor of the Medical Examiner.

SIR—The number of medical students attending the different schools in France has been gradually decreasing since the year 1835—the period when new regulations were enforced, and greater requirements exacted of the aspirants for degrees. By an official return lately made to the Minister of Public Instruction, it is shown that the number of new students, inscribed for the present scholastic year, is nearly two-thirds less than in 1835. The numbers being, of new Inscriptions,

For the year 1835-'36,	1,522.
“ “ 1842-'43,	628.

This falling off is particularly felt at Paris, where there are only 200 new matriculants for the present term; whereas the number has heretofore been from 500 to 700—(in 1835, 900.) A new organization of the Primary and Secondary Medical Schools of the Provinces, by rendering them efficient, has had the effect of keeping young men in the vicinity of their homes, who have hitherto been compelled to come to the metropolis for advantages which were then nowhere else afforded them. The Professors of the Paris faculty complain loudly of the thinness of their classes; for, although being paid by the government, they experience no pecuniary loss, they are dissatisfied at seeing their benches, usually so crowded, now comparatively empty; indeed, with the exception of one or two of the *Cliniques*, and during the lectures of Monsieur Orfila, the rooms may be said to be abandoned.

This decrease in the number of candidates for medical degrees may be considered a fortunate circumstance, for France is abundantly supplied with physicians, and the profession as much overstocked as in our own country. The proportion of practitioners in Paris, including the *Officiers de Santé*, is nearly one for every 600 inhabitants; and in the Provinces, about one to 900.

Although the number of native students is thus decreasing, there are at present an unusual number of foreign ones attending the private lectures and walking the hospitals, and amongst them many intelligent and attentive Americans.

Monsieur QUADRI, the distinguished Italian surgeon, of Naples, has lately been on a visit to Paris, where he has met with a warm reception from his professional brethren, who have vied with each other in their attentions to him. He is a man of mild and quiet manner, agreeable conversation, and a prepossessing appearance. Having been for a number of years engaged in the study of diseases of the eye, and become one of the highest authorities on this subject, he was requested to read to the Royal Academy of Medicine a memoir on the "Ophthalmiæ of

Italy," which was listened to with the greatest attention by the learned body to which it was addressed. After an absence of a few weeks, M. Quadri has now returned to resume his professional duties at Naples.

We have lately had here, in the person of a newborn infant, another powerful proof of the influence of the mother's imagination in the production of phenomena which are supposed to occur during the earlier periods of pregnancy. The infant, which was born a few weeks since, was found at its birth to have the body covered with large spots, or patches, shining, and of a brownish black color, presenting the appearance of smoked or burned meat. The mother, when questioned by her medical attendant, recollected that, at the period of the dreadful railway accident, which happened on the 8th of last May, on the Paris and Versailles railroad, she accompanied her husband to see the remains of the unfortunate victims who had been burned to death; the sight was a shocking one, and made a most disagreeable impression upon her, which lasted for several days, and even nights,—for she says that she frequently dreamed of the dreadful spectacle. The lady was at that period in the second month of her pregnancy; and such members of the faculty as I have conversed with here on the subject, agree in attributing the phenomenon to the impression made on the mother's mind in the manner and at the period indicated. The child, with the exception of these marks, is like all children of its age, and perfectly well-formed and healthy.

Dr. LEROY D'ETIOLLES has been engaged lately in some interesting experiments at the Hôtel Dieu, with the view of testing the influence of *Electro-puncture* in promoting absorption. I have assisted him in several operations, which have so far, however, been confined to hydrocele: the cases selected were of long standing, but in other respects favourable. A needle was introduced into the cavity of the tunica vaginalis, and another into the subcutaneous cellular tissue of the scrotum; these were then connected with the poles of a small galvanic battery, and the acid solution poured on to the plates. The patients complained, at first, of a shock, and afterwards of a disagreeable and slightly painful *burning* sensation. The galvanic action was continued for fifteen or twenty minutes on each occasion, and renewed about every sixth day. In two cases that I have watched closely, the cure was completed after the third application of electricity; i. e., the whole of the effused liquid had been absorbed; it remains, however, to be seen whether the disease will not recur. This method has not yet been reduced into a regular system of treatment, and until some time shall have elapsed, and a greater number of experiments been made, it will be impossible to form a just estimate of its value as a therapeutic means, in cases of serous effusion.

Professor VELPEAU has likewise been engaged in experiments, which, if not more important, are certainly more daring than those of Dr. Leroy. I allude to his injection of a solution of iodine into the joints, in cases of hydrarthrosis. I have seen some of the patients, treated by him in this way, and they were certainly benefitted, if not cured by it. As the Professor is about addressing a communication to the Academy of Sciences on the subject, I shall await its publication before entering into the details of his cases. I may remark, however, that in a recent clinical lecture he stated his intention of generalizing the method, and applying it to the first favourable

cases of ascites and hydrothorax that should present themselves!!!

The large doses of quinine administered a few years back in our southern country in cases of yellow fever, without producing serious consequences, seems to have engendered amongst the French physicians a desire to test its influence in other diseases, when given in the same way.

Dr. BRIQUET, one of the physicians to the Hôpital Cochin, has tried its effect in the various forms of rheumatism, and lately published an account of eighteen cases of acute articular rheumatism which had been completely cured, and in a short time, by very large doses of the sulphate of quinia, continued during six or eight consecutive days. These cases being well authenticated, other physicians adopted the practice, and were generally successful until within the last few weeks, when the supervention of some fatal accidents has, for the moment, damped their zeal in favour of Dr. Briquet's method. Not less than five persons are reported as having died from the effects produced by the ingestion of such large quantities of the medicine as were given—two of them in the wards of the gentleman with whom the practice originated.

The fact that quinine, when properly administered, and in reasonably large doses, is capable of relieving both acute and chronic articular rheumatism, is now well established. I have myself seen some cases successfully treated by it, and amongst others, a remarkable one, to which my attention was directed by Dr. LOUIS, at the Hôpital Beaujon. It was a female patient, who suffered intensely when admitted into the hospital, and who was entirely and completely cured after taking *four grammes* (72 grains) of quinine *per diem*, during eight consecutive days. Louis is of opinion that the error heretofore has consisted in administering the medicine in too concentrated a form. He has been in the habit of dividing the doses, and giving them in a large quantity of vehicle, and, as yet, has had no unfortunate consequences to ensue.

Some little dissatisfaction has been created amongst the medical corps of the army, by the recent promotion of Dr. BAUDENS, who is comparatively a young man, to be First Professor and Chief Surgeon to the Military School and Hospital of Val-de-Grace. Although a meritorious officer, and accomplished surgeon, the preference given to Dr. B. over so many of his seniors, is attributed to the influence of an important member of the Royal family, to whom he is professionally attached.

The long pending discussion at the Royal Academy of Medicine, on the subject of tenotomy, after occupying some eight or ten meetings, has at last been brought to a conclusion, without, however, much new light having been thrown on the subject; indeed, this has been a personal matter throughout, and conducted in so objectionable a manner as to derogate from the dignity of the Academy, and rather detract from, than add to, the reputation of those engaged in it.

Considerable excitement is occasioned in the Medical Society here, as the period approaches for the elections to supply the places of LARREY and DOUGLASS in the Royal Institute. It appears to be generally thought that LALLEMAND, of Montpellier, or VELPEAU will be chosen for the surgical section; and ANDRAL or CRUVEILHIER for that of medicine. The two former gentlemen will, however, have to contend against CIVIALE, who is supported by the powerful influence of ARAGO. And it is probable that neither

Andral nor Cruveilhier would be selected, if Louis would consent to become a candidate.*

Monsieur DUMAS, the chemist, has just been elected a member of the Royal Academy of Medicine.

The *Gazette des Tribunaux* contains, in one of its late numbers, the account of an interesting medico-legal case which has just been decided at Chambéry. A man of the name of Héritier was accused of having poisoned his uncle with prussic acid. The physicians who had attended the uncle during his last moments were called as witnesses, and also directed to assist at the autopsy which the authorities had ordered to be made. These gentlemen, as well as the chemists employed to analyse the contents of the stomach and the liquids of the body, testified; the former, that their patient had died with all the symptoms of poisoning by cyanhydric acid; and the latter, that they had detected the presence of the same poison in such portions of the body of the defunct as had been submitted to their examination. This, and other evidence was so strong against the prisoner, that the jury were about bringing in a verdict of guilty, when the counsel for Héritier succeeded in obtaining a suspension of the proceedings until he could consult some of the higher medico-legal authorities. Dr. ORFILA, the Dean of the Medical Faculty of Paris, and Professor of Chemistry, was applied to, and having examined closely all the circumstances of the case, succeeded in demonstrating, most clearly and satisfactorily,

1st. That the symptoms which preceded the death of the person supposed to have been poisoned, were not such as to justify the assertion that he had died from poisoning.

2d. That the chemists employed were mistaken in thinking that they had detected Prussic acid in the parts examined by them; and

3d. That there was every reason for supposing that the uncle had died of an attack of apoplexy, to which he had been subject during life; the symptoms in the case being such as might be expected in apoplexy; and the fact of the existence of a large clot of blood in one of the ventricles of the brain, tending to confirm such a diagnosis.

The paper of Dr. Orfila, when read by the prisoner's counsel, produced an immense sensation in court, and was sufficient of itself to outweigh all other testimony, as was proved in the sequel, by the full acquittal of the prisoner Héritier.

At one of the late meetings of the Royal Academy of Medicine, Monsieur RENAULT presented some pathological pieces from a horse, which had died eight days after having had injected into his jugular vein some blood which had been drawn from the jugular vein of another horse labouring under glanders. The pieces presented exhibited the lesions characteristic of acute glanders, and the experiment of M. Renault was considered as conclusive, with regard to the capability of communicating this dreadful malady by transfusion of the diseased blood. The same morbid blood that was injected into the veins of the

healthy horse, when examined under a powerful microscope, was not found to differ in any respect from that liquid when in a perfectly normal state.

The winter has been uncommonly mild for Paris; and it is to this circumstance that is attributed the great prevalence of spring and early summer complaints, some of which, such as measles and scarlet fever, have lately become epidemic. Varioloid is also very prevalent; but notwithstanding this, the mortality of the Capital does not appear to be greater than is usual at this season of the year; and all diseases now prevailing assume rather a mild form. Within the last few days a change has occurred in the temperature, and we have rain and snow, with the thermometer at 30° to 35° of Fahrenheit.

F. C. S.

THE MEDICAL EXAMINER.

PHILADELPHIA, APRIL 29, 1843.

MEDICAL OFFICERS OF THE NAVY.

It is not unfrequently asked, what is the mode of obtaining the appointment of assistant surgeon in the navy? but few inquire whether the situation of an assistant surgeon in the navy is really a desirable one. What is the nature of the services required at the hands of this class of officers? how are they cared for on board ships of war? and what is the position of assistant surgeons relatively to other officers in the navy? are questions rarely put by those who quit the University or College, eagerly desiring "to see the world," and commence the career of life. And if they should prudently ask for information on these points, there are few, perhaps, who are competent to give it. It may be interesting to the profession generally to understand this subject; and it may be useful to those who may think of pursuing their professional career in the navy.

The usual manner of obtaining a commission as an assistant surgeon in the navy, is to address an application to the Secretary of the Navy, accompanied by respectable testimonials that the candidate "possesses the moral and physical qualifications requisite for filling creditably the responsible station, and for performing ably the arduous and active duties which will be required of him." The rule of the Navy Department on this subject requires that applicants must be citizens of the United States—(it ought to be natives)—over twenty-one, and not over twenty-eight years of age.

The law provides that "no person shall receive the appointment of assistant surgeon in the navy of the United States, unless he shall have been examined and approved by a board of naval surgeons, who shall be designated for that purpose by the Secretary of the Navy."

Boards of examination are appointed only at such times as the wants of the service render necessary. They usually consist of five experienced surgeons of the navy. The Secretary of the Navy selects from the applicants the number of individuals to be examined. To the persons thus selected, "permissions" are given to present themselves to the Board of Examination, stating the time and place of its meeting. By the instruction of the Navy Department, "the Board rigidly scrutinizes the

* Since the above was written the election to the medical section has been made, and Dr. ANDRAL is the individual chosen. Four candidates were proposed by the "Election Committee." These were Andral, Guérin, Cruveilhier and Poisseuille. The vote stood, for

Andral,	42
Cruveilhier,	4
Poisseuille,	4
J. Guérin,	5

pretensions of each candidate; taking into consideration his physical qualifications and moral habits, as well as his professional acquirements and general knowledge; and reports favourably upon no case admitting of a reasonable doubt, *as the health and lives of the officers, seamen and marines, are objects too important to be committed to ignorant or incompetent hands.* The Board reports the relative merit of the candidates, as shown by the examination; and those of whose qualifications the Board is satisfied, are appointed assistant surgeons as their services are required: of course, those at the head of the list being first commissioned.

"Candidates of whom the Board makes an unfavourable report are allowed a second examination, at a future session, if they desire it; when, if they again fail, their names are dropped from the list of applicants.

"No allowance is made for the expenses of persons undergoing these examinations, as they are indispensable prerequisites to appointment."

In its decisions the Board is uninfluenced by considering of what school the candidate is a graduate, or whether he has graduated at all: provided he possesses the requisite qualifications, it matters very little where, or by what means, (provided always they are honest,) he has obtained his knowledge. Usually, each member of the Board is especially responsible for one or more branches, but is not confined in his examination to these branches, because he has to give his vote as to whether the candidate is qualified, in all respects, to discharge the duties of an assistant surgeon in the navy, and not as to whether he is, or is not, acquainted with a particular branch of medical science. Each candidate writes a thesis, the subject of which is assigned by the Board. He is given a single sheet of paper, and performs his task in an adjoining apartment. This is a close test of primary education, of readiness, and of the character of the candidate's professional mind; and affords the same indication of ability as an off-hand letter upon a professional subject. That part of the examination which relates to bandaging and the treatment of fractures is generally practical; the candidate being required to exhibit his knowledge of the subject by applying dressings to a mannekin or casts, which are provided for the purpose. In short, the chief object of the examination is to ascertain, if possible, whether the candidate is likely to be an active and efficient practitioner of medicine and surgery.

Having passed this ordeal, the candidate, in the course of time, receives from the President of the United States, "by and with the advice and consent of the Senate," a commission, the tenor of which is precisely like that of every commission officer of the navy.*

For the services of a person thus qualified, the govern-

ment pays annually \$950, when employed on shore; when employed at sea, \$1023; and when on leave of absence or waiting orders, \$650. These sums include "rations," and perquisites of every kind and description, except an allowance of ten cents per mile when travelling in the United States by order of the government. Like every other officer in the navy, whether on duty or not, the assistant surgeon pays an annual tax of two dollars and forty cents a year to the "Navy Hospital Fund." These sums only are received; and out of them the medical officer is, of course, obliged to subsist himself, provide his uniforms and clothing, and, should he be married, support his family.

Taking the ordinary run of service for five years, sea and shore duty, and a short leave of absence, the average annual pay of an assistant surgeon will be about \$930, but not more.

The moment a physician accepts the commission of an assistant surgeon he ceases to be a free citizen, and becomes subject to an aristocratic-military government, in which the position or rank of every individual under its power is defined and established by rule or usage, and he is every hour made to feel that he has many superiors in the new community of his choice.

By those who are unaccustomed to the influence of defined rank, and by those who defer only to individual attributes, the value of rank will not be readily appreciated, because they are not aware that rank, in the naval community, controls association, and points out, precisely, where the foot may, or may not rest, on board of public vessels. Rank is the foundation of power, of personal rights and privileges, and, consequently, of discipline in all military governments.

What is the rank of assistant surgeons in the navy? They have no rank whatever. They are in the anomalous situation of holding a military commission, which secures them no personal rights or privileges; and they are preceded by all warrant officers, except boatswains, gunners, carpenters and sailmakers, and by all teachers of navigation, and steam engineers. Assistant surgeons in the army rank correlatively as masters in the navy, or first lieutenants in the army, and, after five years' service, as captains in the army, or lieutenants in the navy.

In a system of "Rules and Regulations for the Navy," recently submitted to Congress for approval, it is proposed that assistant surgeons shall rank with passed midshipmen, (a grade of sea-officers corresponding with second lieutenants or ensigns in the army,) but stipulates that, on all occasions, "the sea-officers shall take precedence" of them.

And, it may be asked, how are assistant surgeons affected by not having any rank?

Follow the assistant surgeon on board ship, and we shall soon find how very uncomfortable he is made by not possessing a proper and defined rank. He is accommodated in the steerage with the midshipmen, that is, boys of from fourteen years of age and upwards; he sleeps in a cot, (a sort of hammock stretched on a frame,) hung up at night in an apartment of perhaps twenty feet square, with eight or ten hammocks, one or more of which he must press to one side, perhaps, before he can reach his bed. His clothes and books are stowed in a "locker," which, on shore, would be a narrow closet; and, when not professionally employed, if he possess the

* Captains, Commanders, Lieutenants, Surgeons, Assistant Surgeons, Chaplains, and (since the year 1812, prior to which they were warrant officers,) Purser, are commissioned officers. Marine officers are also commissioned.

Masters, Second Masters, Masters' Mates, Midshipmen, (whether passed or not,) Boatswains, Gunners, Carpenters and Sailmakers, are warrant officers; that is, they are appointed by the Secretary of the Navy without the advice of the Senate. Professors of Mathematics, Teachers at Naval Schools, and Steam Engineers, are also appointed by the Secretary alone. Secretaries and Clerks receive their appointments, which are temporary, from Commanders-in-chief of squadrons, Commanders of vessels, &c.

power of abstraction, he may read and study as much as he pleases, amidst the ordinary Babel-sounds of a crowded steerage. If he serve in a frigate he is somewhat better off, because there he will have a square hole, called a state-room, in the cockpit, which, being below the water line, is totally dark, except when artificially lighted; but when it is remembered that the cockpit is a sort of common vestibule to the store-rooms of the purser, master, marine officer and captain, from which emanate smells of various dietetics kept for the captain's table, it may be understood that the accommodation is even here not of the most eligible kind. On board of ships-of-the-line his condition is not always improved.

The quarter deck in vessels of war, as well as in others, is the sacred part of the ship. A middle longitudinal line divides it into the right, or *starboard side*, and left, or *larboard side*. The starboard side is the side of honour or distinction, and is the privileged promenade of all commission officers, except assistant surgeons, who are permitted to use the larboard side, which is the ground of the midshipmen. In frigates, assistant surgeons are prohibited from using the same ladder or stair to ascend from the lower to the upper deck; there being one ladder provided for the use of the ward-room officers (lieutenants, surgeon, purser, &c.) and captain, and another common to all other officers.

When ward-room officers leave the vessel or return to it, they do so by the starboard side, and their ingress or egress is always accompanied by the ceremony of "two side boys and piping the side." And at night they answer to the sentry's hail, as they approach the ship, "ay! ay!" and are received by two lanterns, to enable them better to see their way into the ship. But assistant surgeons and warrant officers, except the master, leave and return to the ship by the larboard side, and without the ceremony above mentioned; and when they approach the vessel at night, their answer to the sentry's hail is "no! no!" which has been facetiously construed, "nobody, nobody," and they are permitted to get on board in the dark in the best way they can. The starboard and larboard gangways, or points of entrance and exit, may be compared to the front and back entrance of a mansion; the starboard side or front being for the admission of persons of consideration, and the larboard for the admission of individuals of an inferior order, such as servants and others.

Officially, assistant surgeons are held responsible for the execution of the orders given by the surgeon; and they perform the minor operations, as bleeding, leeching, tooth drawing, cupping, and, at least, superintend the mixing and exhibition of medicine in all forms; attend to the cleanliness of the store-room, dispensary and sick-bay; and in the absence of the surgeon, the senior assistant performs all the duties that devolve upon him. If the ship has a competent surgeon's steward, the details are performed by him, under the general superintendence of the assistant.

At the end of five years the assistant is eligible to examination for promotion, and again appears before the Board. The second examination differs somewhat from the first, and the candidate is expected to exhibit a knowledge of the opinions of medical and surgical writers, and show that he has obtained information on nautical hygiene and nautical medicine. If he be found qualified for promotion, his pay is increased. When on leave of

absence, his annual pay is \$850; when employed on shore, \$1150; and at sea, \$1273; but neither his condition afloat, nor his duties, are changed in any respect. As a passed assistant surgeon he will probably remain four years before he receives a surgeon's commission.

For the first five years after promotion his annual pay, when on leave of absence, is \$1000; when employed on shore, \$1250; and when at sea, \$1406. But his condition afloat is improved, for he enjoys the personal comforts of ward-room officers, and the same observances of etiquette, to a very considerable extent. Yet he has no rank; and even if he has been a surgeon a quarter of a century, he must give precedence to all lieutenants, although their commissions may be no more than a day old, as well as to the purser, be he ever so young in the service.

If a surgeon of twenty years standing—that is, after he has been twenty-nine years in the navy, including the time he serves as assistant and passed assistant surgeon—go to sea as surgeon of the fleet, the only improvement in his circumstances is, that his annual pay is \$2773, for the time he is so employed. If, at the end of the cruise, he is put on leave of absence, he receives \$1800 a year; and if employed on shore, \$2250; or should he be so fortunate as to receive the appointment of Chief of the Bureau of Medicine and Surgery, he can reside at Washington, and receive \$2500 a year while he is working very hard.

Supposing, then, that an assistant surgeon receive a commission when he is twenty-one years of age, he must be fifty before he obtains the very moderate salary of \$2250, while in charge of a hospital or other shore station.

Is such a sum, gained under such circumstances, worthy the laudable ambition of a well educated physician or surgeon? Is it a fair remuneration for the services rendered? Will well educated physicians be contented, and serve under such circumstances, unless their relative position in the navy be improved? It must be constantly borne in mind, too, that medical officers share equally with others the discomforts of sea-life, and are liable to the same wear and tear of constitution and privations entailed by absence from country and home consequent upon it, with others.

May we now ask whether the profession does not open a brighter prospect, under other circumstances than the navy affords, for well educated physicians and surgeons? If it does not, why do young men enter it? The government has more than once declared that it is "well aware of the great importance to the navy of a medical corps possessing high professional qualifications," and that it feels "great gratification in believing that, in this respect, no other service surpasses, if it equals, our own." Yet it takes no means to render the condition of medical officers in the navy more tolerable; but permits them to suffer unkindness and degradation from that class of officers which habitually arrogates to itself all power and all privilege of every kind.

Commanding officers, heretofore, have even possessed the power, which they have frequently exerted, of controlling the supply of medicines for the naval service, both as to kind and quantity. And not very long since a medical officer was actually cashiered by a court martial, because he differed with his commanding officer as to the necessity of having a new pestle and mortar in

his dispensary—the circumstance being converted into an official charge of disrespect and insubordination.

At the late session of Congress a system of rules and regulations for the government of the navy, drawn up by a captain, a commander, a lieutenant and a purser, (but no surgeon) under instructions from the Navy Department, was submitted for approval. In his letter accompanying these Rules and Regulations to Congress, the Secretary of the Navy says:

“As officers of acknowledged merit in the different grades of the service were engaged in this duty, (devising rules and regulations,) the fact that the rules and regulations now presented are approved by *all* of them, affords a strong presumption that they are right.”

Notwithstanding this, this system of rules &c. provides that commanding officers shall control the supply of medicines, inspect the surgeon's journal, and requires assistant surgeons “to inspect and report, daily, to the executive officer of the ship, the state of the galley,” that is, the cooking utensils of the ship's cook!

Such incongruous provisions in a code of laws proposed for approval, would afford to most citizens “a strong presumption that they are” wrong—no matter what might be the reputed intelligence and merit of the persons who devised them.

If space were permitted to contrast the situation of medical officers in the navy with that of pursers and others, as regards pay, or with the army, the case would not be improved.

EMPLOYMENT OF MURIATE OF AMMONIA IN SCIRRHUS OF THE STOMACH.

The above salt having been administered by German practitioners with decided benefit in cases of induration and degenerescence of the bladder, prostate gland, &c., Trusen was induced to employ it in the following instances:

CASE 1.—A man, thirty years of age, accustomed to a sedentary life, and the too great use of alcoholic liquors and strongly spiced aliments, had evidently contracted a scirrhus disease of the pyloric extremity of the stomach. For some months, vomiting, with violent heartburn, &c., had always come on from three to four hours after taking food. Ordered, ammon. hydrochl. fifteen grains every two hours, combined with extract of liquorice. In a short time digestion was performed better, and the appetite restored. Care and abstemiousness in diet were enjoined, and at the end of a six months' persistence in the use of the medicine, the vomitings ceased entirely. A clogged state of the stomach, from superabundance of mucus and habitual constipation, were removed by a six week's visit to the muriated-chalybeate springs of Cudova, and the man subsequently regained perfect health.

CASE 2.—A man of age, and sedentary habits, similar to the foregoing, had been for some time affected with arthritis, &c., on the removal of which he began to be subject to an invariable rejection of the whole of his food a few hours after it had been taken, accompanied by atrophy and emaciation. He entered, however, upon the use of muriate of ammonia in drachm doses, (!) which he continued for seven months, when his vomitings had wholly and permanently disappeared.

The system of the patient soon adapted itself without inconvenience to the above large doses of the re-

medy, which were taken in infusion of ginger.—*Lond. Lan., from Hufeland's Journ.*

STRUCTURE OF THE ARTERIES.

After a variety of conflicting and unsatisfactory accounts, Henle seems at length to have discerned such structures in the arteries as are adapted to the functions which experiment shows to be performed by them. His account of the general structure is briefly this:—

1st, They have an epithelial lining, consisting of a very thin layer of elliptic or rhombic lamellar cells, which are sometimes elongated into longitudinal spindle-shaped fibres.*

2d, There is, immediately external to this, a layer of peculiar tissue, the *striated* or *fenestrated* coat, (corresponding to the *internal* coat of the older anatomists,) consisting of a very thin, rather stiff, and brittle membrane, often perforated by numerous round or oval apertures, and bearing pale, flat, very narrow fibres, which have, for the most part, a longitudinal direction, and give it a peculiar delicately-striated appearance. This coat, which is often morbidly thickened, and when an artery is contracted, is commonly thrown into longitudinal folds, is produced by a metamorphosis of the epithelium, whose cells, as their nuclei disappear, coalesce and form a homogeneous membrane, on which the fibres are afterwards deposited, and which at last, as the apertures in it enlarge, is completely removed, leaving the fibres free.

3d, In some arteries there is, next, a coat formed by a single layer of *longitudinal granular fibres*, flat and tolerably wide, analogous to a coat which is much more prominent in the veins.

4th, A coat composed of *circular fibres*, (the *middle* or *elastic* coat of most foreign writers, the *muscular* coat of Hunter,) which forms the chief part of the arterial wall, and comprises all that can be torn from it in a transverse direction. Its fibres are flat, clear, and granular, and break with abrupt ends. Each of them is commonly marked along its middle by dots scattered, or regularly arranged in a longitudinal row, or by a narrow streak: these are the remains of elongated nuclei, which have formed, as it were, the pattern, according to which the homogeneous membrane in which they lay has broken up into the flat fibres. The streaks formed of the elongated nuclei often branch and anastomose, so as to form that kind of net-work which has led to this coat being mistaken for elastic tissue; whereas it is, in fact, the proper contractile coat of the artery, and is, in all respects of development and microscopic structure, similar to the layers of organic muscle in the stomach, &c.

5th, On its exterior there is a coat of genuine elastic tissue, (*tissu jaune*, the *elastic coat* of Hunter): this exists, however, only in the larger arteries; and its thickness, in comparison with that of the preceding, diminishes in direct proportion to the size of the artery. The direction of its fibres varies greatly in different arteries.

6th, The *external cellular coat*, consisting of common cellular tissue, with longitudinal closely-woven filaments.—*London Medical Gazette, from Report on the chief results obtained by the Microscope, in the study of Human Anatomy and Physiology.* By JAMES PAGET, Demonstrator, of Morbid Anatomy at St. Bartholomew's Hospital, &c.

* Remak and Reichert (Muller, Archiv. 1841, CLXXXVIII.) hold, that these are not the innermost cells of the vessels, but that within these, and in actual contact with the blood, there is a layer of flattened, round, and polyhedral cells, with round, yellowish nuclei and nucleoli. On all these observations by Henle, see Reichert's remarks.

RETROSPECT OF THE MEDICAL SCIENCES.

INFLUENCE OF IMPROVED DIET ON THE HEALTH OF THE INSANE.

Before the revolution, the ordinary ration of bread for each lunatic in the Bicêtre was only a pound and a half. It was distributed in the morning; or, rather, it was instantaneously devoured, and part of the day was passed in a sort of hungry delirium. In 1792, the ration was increased to two pounds, and it was distributed in the morning, at noon, and in the evening, with a well-prepared soup. This is, no doubt, the reason of the difference of mortality found on making an abstract of the registers.

Out of 110 lunatics received into this asylum in 1784, fifty-seven died; that is to say, more than half. In 1788, the proportion was 93 to 151. On the contrary, during the second and third years of the republican era, the mortality was only an eighth of the whole number.—*Lond. Med. Gaz. from Traité Médico-Philosophique sur l'aliénation mentale.*

On Fatty Degeneration of the Arteries, with a Note on some other Fatty Degenerations. By GEORGE GULLIVER, F. R. S.

The author, remarking how vaguely the epithets, atheromatus, steatomatus, &c., have been applied by pathological writers to diseased arteries, and that the morbid deposit between the middle and inner coats, and in the substance of the former, has not, as far as he knows, yet been submitted to precise examination, gives the result of his own observations, from which it appears that the disease is really of a fatty nature. A microscopic examination of it brings into view a multitude of crystalline plates, fatty globules, with albuminous and earthy particles. Several specimens of the crystals were sent for examination to Dr. Davy, who ascertained that they are of cholesteroline.

The fatty matter is easily extracted by boiling alcohol, and the crystals of cholesteroline are seen to be deposited as the solution cools. The author has examined numerous specimens of the disease, and never failed to observe these crystals and the fatty globules in the deposit, and also generally in the substance of the altered middle coat. The microscopic characters are given in two figures.

The accuracy of Dr. Davy's observations (see his "Researches, Phys. and Anat.," vol. I., pp. 372 and 436) as to the thinning, &c., of the middle coat of the artery, is confirmed by Mr. Gulliver.

The importance of fatty degeneration of the coats of the arteries is insisted on, especially as to its general connection with thickening and puckering of the inner membrane, with aneurism, with obstruction, occlusion, or ossification of the vessels, and of those ruptures of them which are so frequently the cause of sudden death.

The author adds, that fatty degenerations are more common and of more importance than has yet been supposed. He mentions obstruction, by fatty particles, of the seminal tubes; and notices fatty degenerations of the blood, lungs, &c. The disease he describes as being more remarkable in "brown consolidation" of the lungs than in red consolidation; and these two diseases are described as affording distinct morbid products.—*Provincial Medical Journal*, March 18, 1843.

A Normal and Abnormal Conscious State, alternating in the same Individual. By JOHN WILSON, M. D., Physician to the Middlesex Hospital.

This case occurred in a boy, aged fourteen, a patient in the Middlesex Hospital, who is said to have complained of headache for two or three days, but whose appearance was healthy. For three or four days his appetite was inordinate, seizing upon any article of food he could meet with in the ward, though allowed full diet. When not eating or seeking for food he generally slept night and day. This abnormal state continued for three or four days, when he recovered his natural state of sleep, appetite, and consciousness. Then he had no recollection of what he had done, or of what had happened to him since his admission.

He was shortly discharged, but twice readmitted, each time presenting the same symptoms—i. e., alternations of consciousness and unconsciousness.

No treatment was adopted. The author, for the present, reserves his opinion and inferences drawn from this case; his object is to invite further examination for similar cases; and when such occur then will be the time for discussion.—*Ibid.*

THE PROPORTION OF CARBONIC ACID FORMED IN TYPHUS.

Dr. Malcolm, of Belfast, has instituted a series of upwards of fifty experiments on the air expired by patients laboring under all types of the disease, and in all its stages. They were performed during the months of May and June, and invariably at one period of the day—viz., between the hours of eleven o'clock, a. m., and two o'clock, p. m., corresponding to the period when, according to Dr. Prout, the maximum proportion of carbonic acid gas is generated. Great care was taken in collecting the respired air, and in subjecting it afterwards to chemical analysis. The manner of breathing of the patient, the density of the atmosphere, temperature, age of the patient, and his mental state, were also carefully noted.

He concludes, from the results of his experiments, that in typhus fever the formation of carbonic acid gas during respiration is considerably less than in a state of health, the difference being, as nearly as possible, 1.5 per cent.—a difference which, in a number of cases, is much increased, and one too large to be the result of accidental circumstances. The quantity generated is least in the more severe forms of the disease. The diminished proportion, however, is not at all uniform, on some occasions the number being very low indeed, and in others rising to even as high as 2.7 per cent. The difference between the proportion of carbonic acid gas generally, as influenced by fever, and in the severe forms, is, it may be observed, as nearly as possible 2 per cent.—a difference, perhaps, too small to form the basis of any general conclusion.—*Ibid, from Lond. and Edin. Medical Journal*, Jan. 1843.

INTRODUCTION OF AIR IN THE VEINS.

The "Annales de la Chirurgie Française et Étrangère" contain a communication, by M. Marchal de Calvi, on the introduction of air into the veins, in the course of which he offers a new explanation of the cause of death produced thereby. The opinion that it depends on the distension of the heart, by which

its contractions are prevented, is, he admits, supported by the experiments of Nysten with the different gases, but he says it does not explain those cases where the death is so frightfully sudden, as if the patient had been struck by lightning, and which resembles the immediate effect of a poisonous dose of prussic acid. In these cases there must be, he thinks, some toxic agent, and then arises the question, what is that agent? Hitherto to this there has not been offered any reply, but M. Marchal thinks he has found the answer, by discovering the presence of carbonic acid gas in the heart, which he is of opinion is disengaged every time air is introduced into it through the venous system. In this he is supported by the appearance of the blood in the pulmonary cavities of the heart, which, instead of being black, is red, it having been decarbonised by the contact with the atmospheric air, the oxygen of which has combined with its carbon, and formed the carbonic acid gas, to the action of which M. Marchal refers the death of the patient; and again, if, in performing experiments on this subject, the operator breathe through the tube into the vein, instead of injecting the purer air around him, the fatal effect will be much more rapidly induced, there being carbonic acid gas already generated in the injected fluid. The experiments of Nysten, however, with carbonic acid gas and oxide of carbon do not support this hypothesis. — *Ibid.*

ELECTRO-PUNCTURE.

M. Schuster has lately addressed a paper to the French Academy of Sciences, to prove that electricity is little serviceable in medicine unless it be applied through the means of acupuncture needles. Administered in this way, he asserts it may be employed with success against dropsies of all kinds, steatomatous and other tumours, engorgements and indurations, (and perhaps cancer,) goitre, varicose dilations, chronic rheumatism, paralysis, amaurosis, and perhaps aneurism. Electro-puncture acts, he says, by directly stimulating the sensibility, contractility, and absorbent function; in the formation of internal eschars, and the detraction, piece by piece, of diseased growths; in decomposing the fluid contents of tumours; in procuring external openings for matter, provoking adhesive inflammations, &c.; though some of these effects seem capable of production by the needles alone, without the electricity. — *London Lancet.*

RENAL DISEASE SIMULATING CALCULUS IN THE BLADDER.

M. Segalas reports that he was called to attend on a child, from four to five years of age, which often placed its hands on the genitals, and experienced frequent desire to pass urine, which action, however, was always performed with pain. The urine was tolerably abundant, and yielded a muco-purulent deposit. The acuteness of the various symptoms had been considerably increased during some recent attacks of roseola and bronchitis. These symptoms apparently indicated the presence of a calculus in the bladder; M. Segalas, however, doubted that one really existed, having never met with this disease in any children but those of parents in a much lower sphere of life than those of this patient; and a careful examination proved that no urinary calculus in reality existed. Some time afterwards the child died of a cerebral affection, and the body was opened.

The bladder, as well as the urethra, was found perfectly healthy and free from urinary deposit; but the left ureter was much dilated, and the pelvis of the corresponding kidney three or four times larger than that of the opposite side. The calices also were enlarged, and the cortical substance of the kidney was inflamed at several points. The right kidney was healthy. — *Ibid.*, from *Gaz. de Hop.*

OBSERVATIONS ON IMPULSIVE INSANITY.

BY DR. MACKINNON.

Dr. Mackinnon, at the Medico-Chirurgical Society of Edinburgh, February 1st, 1843, remarked that insanity was occasionally displayed in an impulse to commit such acts as suicide, homicide, theft, fire-raising, &c., without any *delusion* of the understanding, in the common sense of the term, being present. Medical and legal writers, for a long period, exclusively regarded the intellectual faculties, when treating of mental derangement, and omitted all reference to the moral feelings—a part of the mental constitution at least equal in importance to the former. Thus monomania of the intellect was allowed, while monomania of the moral feelings was disregarded. The fact was, however, as remarked by Pritchard, that derangement of the moral feelings was fully more characteristic of insanity than delusion of the intellect. Among the inmates of an asylum, many are always found in whom this moral derangement exists in a greater degree than the intellectual. These prepare us for cases in which the derangement is *exclusively* in the moral part of the mental constitution. It certainly was sometimes a matter of extreme difficulty to distinguish such cases from others in which criminal acts were committed, for which the perpetrator was justly responsible. The best guides in the diagnosis were the existence or not of hereditary predisposition to mental disease, the presence or absence of the usual motives to crime, the consistency or inconsistency of the acts committed with the previous character of the individual, and, above all, the presence or absence of the physical signs of insanity, such as heat of head, injection of conjunctiva, furred tongue, and derangement of the cuticular and other secretions of the body. Dr. M. proceeded to give examples of impulsive insanity which had come under his observation. In the first case the *morale* was altogether deranged, and a disposition to commit both homicide and suicide exhibited, while the intellectual faculties, so far from being impaired, were above the average. Hereditary predisposition (a parent committed suicide), and the physical signs of disease were present. In the next case homicidal and suicidal propensities were felt, reasoned on, and deeply regretted by the patient, whose mind was of the highest order. In this case the physical signs of the disease were absent, and would have rendered it a matter of extreme difficulty to have sustained the plea of insanity if homicide had been committed. The whole history, however, conclusively showed a state of mental disease. In the next case the fire-raising and homicidal propensities were displayed. The physical signs were present. In the last case, detailed at length, a propensity to theft, and a wholly perverted *morale*, were exhibited. Dr. M. alluded to other cases of the same interesting, and, in a medico-legal point of view, most important form of insanity. — *Provincial Medical Journal*, from *Edinburgh Monthly Journal*.